

AMENDMENT TO H.R. 5656
OFFERED BY MR. GORDON OF TENNESSEE

Amend section 15 to read as follows:

1 **SEC. 15. ARPA-E.**

2 (a) FINDINGS.—The Congress finds the following:

3 (1) The United States faces a range of energy
4 challenges that affect our economy, security, and en-
5 vironment. Fundamentally, these challenges involve
6 science and technology.

7 (2) The Department of Energy already has
8 some of the mechanisms necessary to promote long-
9 term research, but it lacks the mechanisms for
10 quickly transforming the results into technology that
11 meets national needs.

12 (3) A recent report of the Secretary of Energy's
13 Advisory Board's Task Force on the Future of
14 Science Programs at the Department of Energy con-
15 cluded that "America can meet its energy needs only
16 if we make a strong and sustained investment in re-
17 search in physical science, engineering, and applica-
18 ble life sciences and if we translate advancing sci-
19 entific knowledge into practice".



1 (4) The Department of Defense, since 1958,
2 has used its Defense Advanced Projects Research
3 Agency (DARPA) for aggressively addressing real-
4 time defense problems through targeted programs of
5 research and technology development that have im-
6 proved our national defense through transformation
7 technologies.

8 (5) The National Academy of Sciences' report
9 entitled "Rising Above the Gathering Storm: Ener-
10 gizing and Employing America for a Brighter Eco-
11 nomic Future" recommends creating a new agency
12 within the Department of Energy to sponsor "cre-
13 ative, out-of-the-box, transformational, generic en-
14 ergy research in those areas where industry by itself
15 cannot or will not undertake such sponsorship,
16 where risks and pay-offs are high". Such an organi-
17 zation would be able to accelerate the process by
18 which research is transformed to address energy-re-
19 lated economic, environmental, and security issues to
20 decrease dependence on foreign energy through tar-
21 geted research and technology development.

22 (b) ADVANCED RESEARCH PROJECTS AGENCY-EN-
23 ERGY.—

24 (1) ESTABLISHMENT.—There is established the
25 Advanced Research Projects Agency-Energy (in this



1 section referred to as “ARPA–E”) within the De-
2 partment of Energy.

3 (2) GOAL.—The goal of ARPA–E is to reduce
4 the amount of energy the United States imports
5 from foreign sources by 20 percent over the next 10
6 years by—

7 (A) promoting revolutionary changes in the
8 critical technologies that would promote energy
9 independence;

10 (B) turning cutting-edge science and engi-
11 neering into technologies for energy and envi-
12 ronmental application; and

13 (C) accelerating innovation in energy and
14 the environment for both traditional and alter-
15 native energy sources and in energy efficiency
16 mechanisms to decrease the Nation’s reliance
17 on foreign energy sources.

18 (3) DIRECTOR.—ARPA–E shall be headed by a
19 Director who shall be appointed by the Secretary of
20 Energy. The Director shall report to the Secretary.

21 (4) RESPONSIBILITIES.—The Director shall ad-
22 minister the Fund established under subsection (c)
23 to award competitive grants, cooperative agreements,
24 or contracts to institutions of higher education, com-
25 panies, or consortia of such entities which may in-



1 clude federally funded research and development
2 centers, to achieve the goals stated in paragraph (2)
3 through targeted acceleration of—

4 (A) energy-related research;

5 (B) development of resultant techniques,
6 processes, and technologies, and related testing
7 and evaluation; and

8 (C) demonstration and commercial applica-
9 tion of the most promising technologies and re-
10 search applications.

11 (5) PERSONNEL.—

12 (A) PROGRAM MANAGERS.—The Director
13 shall designate employees to serve as program
14 managers for each of the programs established
15 pursuant to the responsibilities established for
16 ARPA-E under paragraph (4). Program man-
17 agers shall be responsible for—

18 (i) establishing research and develop-
19 ment goals for the program, including
20 through the convening of workshops and
21 conferring with outside experts, as well as
22 publicizing its goals to the public and pri-
23 vate sectors;

24 (ii) soliciting applications for specific
25 areas of particular promise, especially



1 those which the private sector cannot or
2 will not provide funding;

3 (iii) selecting research projects for
4 support under the program from among
5 application submitted to ARPA-E, fol-
6 lowing consideration of—

7 (I) the novelty and scientific and
8 technical merit of the proposed
9 projects;

10 (II) the demonstrated capabilities
11 of the applicants to successfully carry
12 out the proposed research project; and

13 (III) such other criteria as are
14 established by the Director; and

15 (iv) monitoring the progress of
16 projects supported under the program.

17 (B) HIRING AND MANAGEMENT.—In hiring
18 personnel for ARPA-E, the Secretary shall
19 have the hiring and management authorities de-
20 scribed in section 1101 of the Strom Thurmond
21 National Defense Authorization Act for Fiscal
22 Year 1999 (5 U.S.C. 3104 note). For purposes
23 of subsection (c)(1) of that section, the term of
24 appointments for employees may not exceed 5
25 years before the granting of any extension.



1 (6) COORDINATION.—The Director shall ensure
2 that the activities of ARPA–E are coordinated with
3 those of other relevant research agencies, and may
4 carry out projects jointly with other agencies.

5 (c) FUND.—

6 (1) ESTABLISHMENT.—There is established in
7 the Treasury the Energy Independence Acceleration
8 Fund (in this section referred to as the “Fund”),
9 which shall be administered by the Director of
10 ARPA–E for the purposes of carrying out this sec-
11 tion.

12 (2) AUTHORIZATION OF APPROPRIATIONS.—
13 There are authorized to be appropriated to the Di-
14 rector of ARPA–E for deposit in the Fund
15 \$300,000,000 for fiscal year 2007, \$375,000,000 for
16 fiscal year 2008, \$468,000,000 for fiscal year 2009,
17 \$585,000,000 for fiscal year 2010, \$732,000,000 for
18 fiscal year 2011, and \$915,000,000 for fiscal year
19 2012, to remain available until expended.

20 (d) RECOUPMENT.—

21 (1) REQUIREMENT.—Not later than 180 days
22 after the date of enactment of this Act, the Sec-
23 retary shall establish procedures and criteria for the
24 recoupment of the Federal share of each project sup-
25 ported under this section. Such recoupment shall



1 occur within a reasonable period of time following
2 the date of the completion of such project, but not
3 later than 20 years following such date, taking into
4 account the effect of recoupment on—

5 (A) the commercial competitiveness of the
6 entity carrying out the project;

7 (B) the profitability of the project; and

8 (C) the commercial viability of the tech-
9 nology utilized.

10 (2) WAIVER.—The Secretary may at any time
11 waive or defer all or some portion of the recoupment
12 requirement as necessary for the commercial viabil-
13 ity of the project.

14 (3) AVAILABILITY OF FUNDS.—Revenue re-
15 ceived by the Federal Government pursuant to this
16 subsection shall be deposited into the Fund and
17 shall be available with further appropriation to fund
18 future grants, contracts, and cooperative agreement
19 as authorized by the Director.

20 (4) DEFINITIONS.—For the purposes of this
21 subsection—

22 (A) the term “for-profit entity” means a li-
23 censee or successor in interest to a venture
24 member, or any other for-profit person or enti-
25 ty, or combination of such persons or entities,



1 that earns or accrues amounts subject to this
2 subsection;

3 (B) the term “product or invention sup-
4 ported by or produced as a result of funding
5 under this section” includes any product or in-
6 vention of a venture member based on or using
7 any technology or invention arising out of a
8 venture funded under this section; and

9 (C) the term “revenue generated by or re-
10 sulting from a product or invention” includes
11 revenue derived from the sale or licensing of
12 patents or other rights with respect to the prod-
13 uct or invention.

14 (e) ADVICE.—

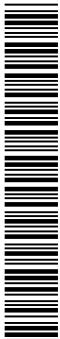
15 (1) ADVISORY COMMITTEES.—The Director
16 may seek advice on any aspect of ARPA-E from—

17 (A) existing Department of Energy advi-
18 sory committees; and

19 (B) new advisory committees organized to
20 support the programs of ARPA-E and to pro-
21 vide advice and assistance on—

22 (i) specific program tasks; or

23 (ii) overall direction of ARPA-E.



1 (2) APPLICABILITY.—Section 14 of the Federal
2 Advisory Committee Act shall not apply to advisory
3 committees organized under paragraph (1)(B).

4 (3) ADDITIONAL SOURCES OF ADVICE.—The
5 Director may seek advice and review from the Na-
6 tional Academy of Sciences, the National Academy
7 for Engineering, and any other professional or sci-
8 entific organization with expertise in specific proc-
9 esses or technologies under development by ARPA-
10 E.

11 (f) ARPA-E EVALUATION.— After ARPA-E has
12 been in operation for 54 months, the President's Com-
13 mittee on Science and Technology shall begin an evalua-
14 tion (to be completed within 12 months) of how well
15 ARPA-E is achieving its goals and mission. The evalua-
16 tion shall include the recommendation of such Committee
17 on whether ARPA-E should be continued or terminated,
18 as well as lessons-learned from its operation. The evalua-
19 tion shall be made available to Congress and to the public
20 upon completion.

